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### ORAL SUSTAINED RELEASE AGENT

**Inventor(s):** TAKADA SHIGEYUKI; NAKAGAWA YASUSHI; IWASA SUSUMU \*

**Applicant(s):** TAKEDA CHEMICAL INDUSTRIES LTD \*

**Classification:**   
 - **international:** **A61K31/41; A61K31/44; A61K31/50; A61K38/00; A61K45/00; A61K47/34; A61K9/52; A61P1/00; A61P11/08; A61P31/04; A61P37/08; A61P43/00; A61P9/12; B01J13/04; B01J13/12; C08L67/00; C08L67/04; (IPC1-7): A61K31/41; A61K31/44; A61K31/50; A61K38/00; A61K45/00; A61K47/34; A61K9/52; B01J13/04; B01J13/12; C08L67/04**  
 - **European:**

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### Abstract of JP8151322 (A)

**PURPOSE:** To obtain an oral sustained release agent comprising microcapsules enabling the sustained release and oral absorption improvement of a physiologically active substance. **CONSTITUTION:** The microcapsules contain a physiologically active substance having water solubility (water solubility of  $\geq 0.1\text{g}/100\text{ml}$ , preferably  $\geq 1\text{g}/100\text{ml}$ , at 20 deg.C) at a pH of  $\leq 3$ , and a biodegradable polymer. The polymer is preferably a polyfatty acid ester, especially *l*-lysine, ascorbylpycolic acid, copolymer of hydroxybutyric acid/glycolic acid, copolymer, which has preferably a weight-average mol.wt. of 2000-5000. The physiologically active substance is slightly soluble in water at a pH of 5-8, namely has a water solubility of  $\leq 0.01\text{g}/100\text{ml}$ , especially  $\leq 0.001\text{g}/100\text{ml}$ , at 20 deg.C, and is preferably amide, azide, their condensed ring compound, etc. The microcapsules are obtained by dissolving the physiologically active substance and the polymer in an organic solvent, and subsequently subjecting the solution to a drying-in-water treatment or a spray-drying treatment.

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